

# Linguistic and technical training as a community empowerment tool

1<sup>st</sup> International Conference on Language  
Documentation and Conservation

University of Hawai'i, March 14<sup>th</sup>, 2009

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# Outline

1. Introduction
2. Training
  - a. Linguistic training
  - b. Technical training
3. Results
4. Conclusion

# 1. Introduction

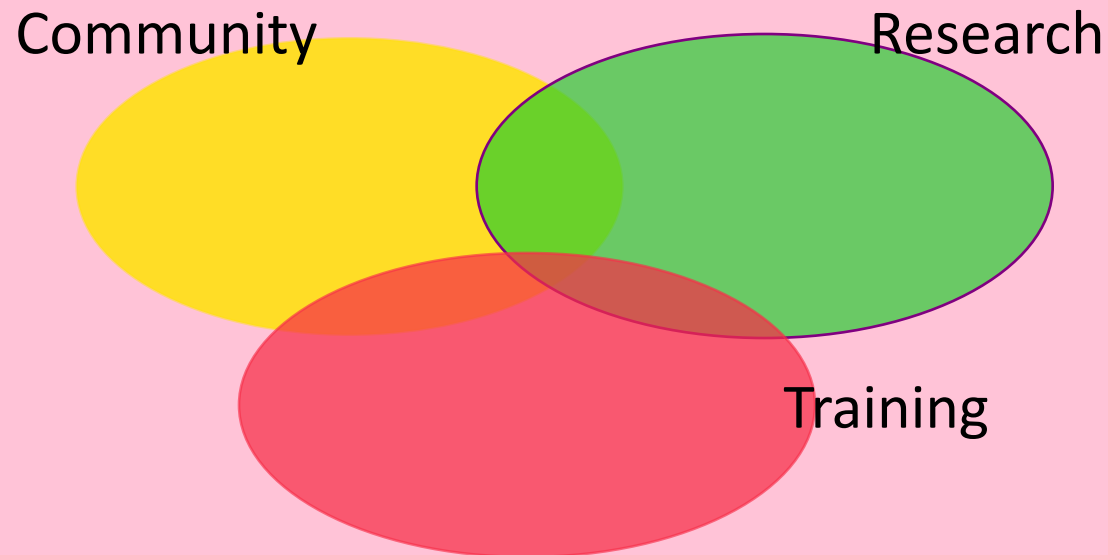
- The team:

Mayangna Yulbarangyang Balna

A team of linguists comprised exclusively of speakers of Mayangna, a Misumalpan language spoken in NE Nicaragua and SE Honduras.

# 1. Introduction

- The approach:  
Participatory Action Research (PAR)



## 2. Training: Linguistic training

- Different linguistic training workshops since mid 1990's.



## 2. Training: Technical training

- The equipment:
  1. Laptop computers
    - a. Autonomy
    - b. Accessibility
    - c. Mobility
    - d. Ownership
  2. Video camera
  3. Audio recording devices

## 2. Training: Technical training

- Four steps:
  1. Use of audio and video equipment for the recording of new data;
  2. Conversion of collected data from analog to digital format;
  3. Transfer of the linguistic data into ELAN software;
  4. Use of ELAN for transcription and annotation.

## 2. Training: Technical training

1. Use of audio and video equipment for the recording of new data:
  - a. Tape recorder
  - b. Built-in computer recording software
  - c. Video camera
  - d. Digital recorder



## 2. Training: Technical training

### 2. Conversion of collected data from analog to digital format:

#### a. Conversion of sound files

- i. Tape recorder
- ii. Computer
- iii. [Handout](#)

#### b. Transfer of video files

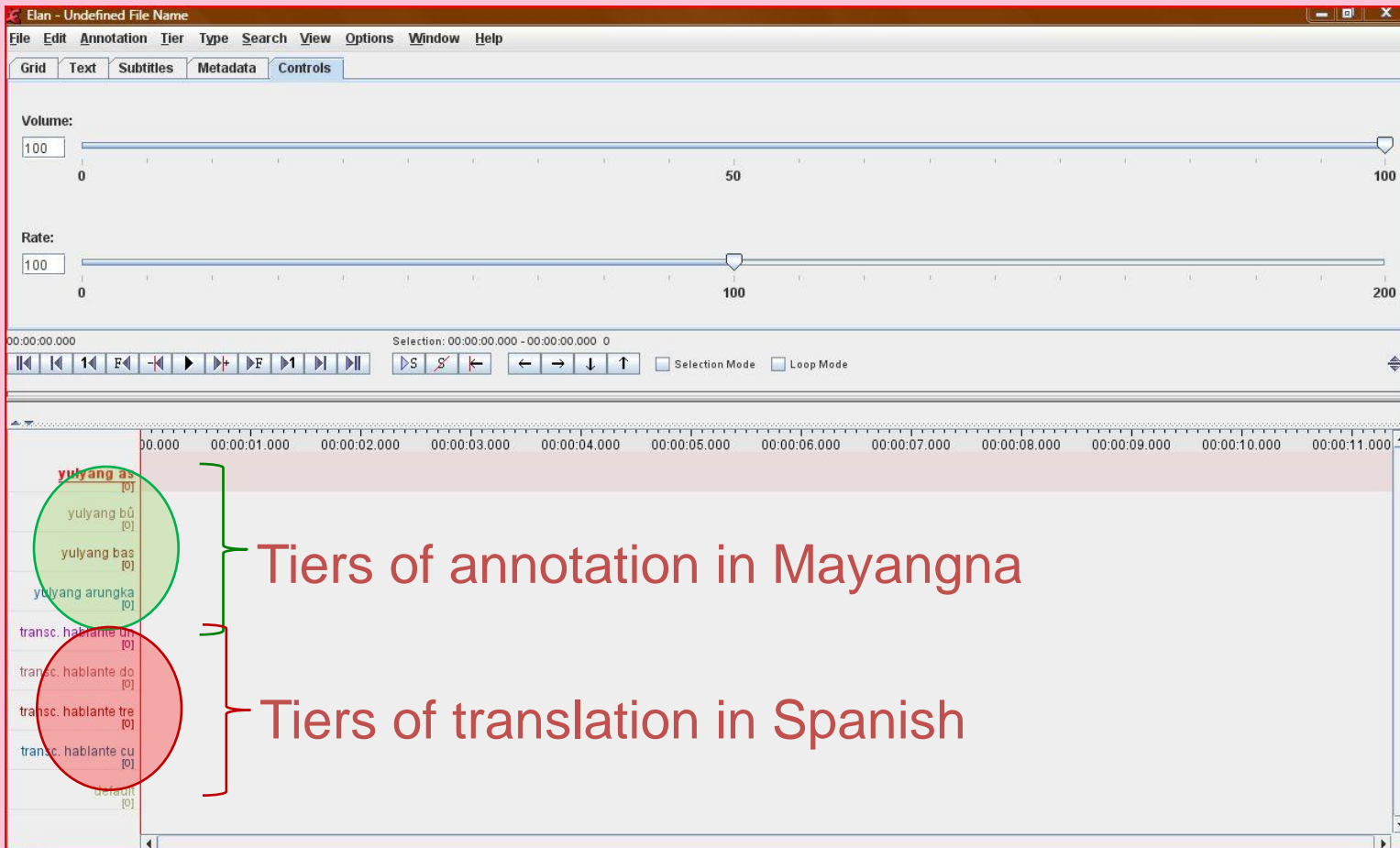
- i. Video camera
- ii. Computer
- iii. [Handout](#)

## 2. Training: Technical training

### 3. Transfer of the linguistic data into ELAN software:

- a. Importing data
- b. Use of template

## 2. Training: Technical training



The screenshot displays the Elan software interface for audio annotation. The top menu bar includes File, Edit, Annotation, Tier, Type, Search, View, Options, Window, and Help. Below the menu is a toolbar with buttons for Grid, Text, Subtitles, Metadata, and Controls. The main window features two sliders: Volume (0 to 100) and Rate (0 to 200). A timeline at the bottom shows a selection from 00:00:00.000 to 00:00:00.000. The annotation tiers are listed on the left, with a green circle highlighting the first four tiers (yulyang as, yulyang bú, yulyang bas, yulyang arungka) and a red circle highlighting the next four tiers (transc. hablante on, transc. hablante do, transc. hablante tre, transc. hablante cu). Brackets on the right side of the tiers indicate the scope of the annotations.

Tiers of annotation in Mayangna

Tiers of translation in Spanish

## 2. Training: Technical training

4. Use of ELAN for transcription and annotation:
  - a. Transcribing new data
  - b. Completing existing transcriptions

## 2. Training: Technical training

### 4. Use of ELAN for transcription and annotation:

The screenshot displays the ELAN software interface, titled "Elan - Dwibx\_SusaToma.eaf". The interface includes a menu bar (File, Edit, Annotation, Tier, Type, Search, View, Options, Window, Help) and a toolbar with various editing and navigation tools. The main window is divided into several sections:

- Grid:** A video window on the left shows two people sitting at a desk. Below it, a timeline displays the audio waveform and a transcription of the spoken text: "dawak...".
- Text:** A list of tiers on the left side of the main window, including "yulyang as", "yulyang bú", "yulyang bas", "yulyang arungka", "transc. hablante un", "transc. hablante do", and "transc. hablante tre".
- Audio Recognizer:** A panel on the right side of the main window, containing a "Silence Recognizer" section with a "Minimal Silence Duration" slider set to 400 milliseconds and a "Minimal Non Silence Duration" slider set to 300 milliseconds. Below these sliders is a "Start" button.
- Metadata:** A panel on the right side of the main window, containing a "Segmentations" section with a "Create Tier(s)..." button.

The bottom of the interface shows a status bar with the current selection range: "Selection: 00:00:00.250 - 00:00:03.520 3270".

# 3. Results

- Once training sessions were complete:
  1. The team was able to do all the process by themselves, from data recording to data transcription and annotation.
  2. The data collected will be used in the bilingual education program, in radio-broadcasting programs, and for cultural revival activities.

# 4. Conclusion

## Training component of PAR

Contribution  
to self-empowerment

Speakers as agents

Speakers as  
decision makers

# *Questions?*

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